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Patent Application
Attorney Docket No. D/98621

5/14/02
#11(Appeal
Brief

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Zhao, et al
Application No.: 09/514,699
Filed: 2/28/00
Examiner: J. Dote
Art Unit: 1753
Title: LIQUID DEVELOPERS AND PROCESSES
THEREOF

Commissioner for Patents
Washington, D.C. 20231

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LETTER

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Enclosed herewith is an original and two copies of Appellants' Brief
on Appeal on the above-identified application.

Please charge any fees associated with the filing of the Brief on
Appeal to Xerox Corporation, Deposit Account No. 24-0025. Two duplicate
copies of this letter are enclosed.

Respectfully submitted,

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ATTORNEY DOCKET NO. D/98621

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re: Zhao, et al

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Group Art Unit: 1753

Title: LIQUID DEVELOPERS AND PROCESSES THEREOF

APPELLANTS' BRIEF ON APPEAL

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1. **REAL PARTY OF INTEREST**

The real party in interest in the present Appeal is Xerox Corporation, the assignee, as evidenced by the assignment set forth at Reel 010659, Frame 0799.

2. **RELATED APPEALS AND INTERFERENCES**

It is believed that there are no related appeals and interferences.

3. **STATUS OF CLAIMS**

Claims 1, 3-5, 7, 9 and 10 stand finally rejected.

4. **STATUS OF AMENDMENTS**

The Examiner stated that the amendment dated 1/15/02 would be entered upon the timely submission of a Notice of Appeal and Appeal Brief with requisite fees. Appellants' have previously submitted the Notice of Appeal and fee, thus it is believed that no further fees are needed. Should the Examiner disagree it is respectfully requested that he contact Appellant's Attorney.

Appellant's amendment dated January 15, 2002 submitted in response to the Examiner's Final Office Action dated December 21, 2001 was indicated by the Examiner as failing to place the application in condition for allowance.

5. **SUMMARY OF INVENTION**

The invention is generally directed to liquid toner and developer compositions and to imaging processes thereof, for example, see page 1, lines 22-26 of the present application as filed.

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6. ISSUES

1. Whether claim 10 rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite in-fact failed to distinctly claim the subject matter of the invention.

2. Whether claims 1, 3-5, 7, and 9 rejected under 35 U.S.C. § 103, as allegedly being unpatentable in view of US Patent 5,345,296 (Wellings), in view of US Patent 5,254,427 (Lane), and in view of US Patent 5,826, 147 (Liu) in-fact are made obvious.

7. GROUPING OF CLAIMS

It is respectfully requested that the Board of Patent appeals and Interferences consider each and every claim with respect to determining the 35 USC § 103 issues, and in this regard the claims do not stand or fall together. For purposes of convenience, the claims are being grouped as follows:

Group I Claim 1. Independent claim 1 generally relates to a development process using a liquid toner composition.

Group II Claims 3-5, 7, and 9 relates to a liquid development process.

8. ARGUMENT

1.) Claim 10 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, which rejection is traversed.

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With regard to claim 10, antecedent basis for "developer cake" is found in claim 1, line 6. Further with regard to claim 10, the developer cake is not "dispersed in the second liquid developer in the form of toner particles or solids", as asserted by the Examiner. The developer cake contains both liquids and solids. The developer cake, containing both liquids and solids is separated from the second liquid developer until the solids content of the second liquid developer drops below from about 6 to about 10 weight percent. The solids content of the developer cake is reduced to about 6 to about 10 weight percent in the process of claim 10. The developer cake having been defined as the deposition product of the second liquid developer onto a liquid receiver member.

2.) Claims 1, 4, 5, 7, and 9 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over US Patent 5,345,296 in view of US Patent 5,254,427.

Claims 1, 3-5, 7, and 9 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over US 5,826,147 in view of Wellings and Lane.

Applicant's point out that they are not now, nor were they attempting in Paper No. 4, dated July 23, 2001 to show nonobviousness, nor responding under 35 U.S.C. 102, as alleged by the Examiner in Paper No. 7. Applicants have previously asserted and continue to assert that the Examiner has not established a *prima facie* case of obviousness. The Examiner has failed to point out any suggestion in Wellings or Lane any suggestion, motivation, or incentive to modify or combine the references.

Wellings does not teach the liquid developer reconstitution compound recited for example, in claim one the Examiner has not established that Wellings does not teach the use of a second liquid developer. Additionally, Wellings does not teach the dispersion of a first and second liquid developer. Further, Wellings does not teach the formation of a second liquid developer by dispersion of a first liquid developer concentrate in a carrier liquid into additional carrier liquid. Still further, Wellings does not teach redispersing the reclaimed undeveloped developer cake in a second developer liquid.

More specifically, there is recited in claim 1 "reclaiming undeveloped developer cake from the cake bearing liquid receiver member" and the reference is silent with regard to "redispersing the reclaimed undeveloped developer cake in the second developer liquid". When prior art references require selective combination to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gleaned from the invention itself. Uniroyal Inc. v. Rudkin Wiley Corp., F. 2d, 5 U.S.P.Q. 2d 1435 (Fed. Cir. 1988); Interconnect Planning Corp. v. Feil, 774 F. 2d 1132, 227 U.S.P.Q. 543 (Fed. Cir. 1985). It is impermissible to use the claims as a frame and the prior art references as a mosaic to piece together a facsimile of the claimed invention. Uniroyal Inc. v. Rudkin Wiley Corp., F. 2d, 5 U.S.P.Q. 2d 1435 (Fed. Cir. 1988); W. L. Gore and Associates, Inc. v. Garlock, Inc., 721 F. 2d 1540, 220 U.S.P.Q. 303 (Fed. Cir. 1983).

The Examiner appears to have considered various portions of the references cited, in each instance viewing the cited portion in isolation from the context of the entire reference, and combined these isolated portions to arrive at the present invention with the benefit of hindsight. Using hindsight or applying the benefit of the teachings of the present application when determining obviousness, however, is impermissible; the references applied must be reviewed without hindsight, must be reviewed as a whole, and must suggest the desirability of combining the references. *Lindemann Maschinenfabrik v. American Hoist & Derrick Co.*, 221 U.S.P.Q. 481 (Fed. Cir. 1984). There is not suggestion in the cited reference to combine elements in the manner suggested by the Examiner. The consistent criterion for determination of obviousness is whether the prior art would have suggested to one of ordinary skill in the art that this process should be carried out and would have a reasonable likelihood of success, viewed in the light of the prior art. Both the suggestion and the expectation of success must be founded in the prior art, not in the applicant's disclosure. *In re Dow Chemical*, 5 U.S.P.Q. 2d 1529 (Fed. Cir. 1988). There is no suggestion in *Wellings, Lane*, nor *Liu* to combine the disclosures in the manner articulated by the Examiner. Without such a suggestion, there can not be any expectation of success.

Liu does not teach the use of a second liquid developer. *Liu* does not teach redispersing of the reclaimed undeveloped developer cake in a second liquid developer. Further, *Liu* does not teach or suggest the use of a second liquid developer which is dielectric.

None of the cited references suggests or teaches the desirability of combining the elements of the present invention as claimed. Obviousness cannot be established by combining references to arrive at the claimed invention, absent some teaching, suggestion, or incentive supporting the combination. In re Geiger, 2 U.S.P.Q. 2d 1276 (Fed. Cir. 1987); Carella v. Starlight Archery and Pro Line Co., 804 F.2d 135, 231 U.S.P.Q. 644 (Fed. Cir. 1986); ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 221 U.S.P.Q. (BNA) 929 (Fed. Cir. 1984).

In the instant application, the Examiner indicates that it would have been obvious for a person having ordinary skill in the art to combine the liquid developer concentrate comprising a surfactant as disclosed by Lane with the teachings of Wellings and/or Liu to arrive at the applicant's invention. The Examiner has not provided any reason or suggestion for the combination other than the hindsight taken from the applicant's invention as to why one of ordinary skill in the art would be motivated. There is no suggestion in Wellings, Liu, or Lane for such a combination. The Examiner has stated that Lane's liquid developer concentrate meets Wellings requirements of a liquid developer concentrate and that Lane teaches that his liquid developer concentrate can be easily dispersed and eliminates the need for frequent disposal of liquid from the developing apparatus. The fact that the prior could have been modified does not make the modification obvious when there is no suggestion of the desirability of such a modification.

The Examiner is using Appellant's disclosure as a recipe for selecting the appropriate portions of the prior art to construct Appellant's invention. In that for example, the Examiner has taken the liquid developer concentrate of Lane and implied that because the liquid developer concentrate of Wellings has some similarities in common with the disclosure relating to the applicants' reconstitution compound that it would have been obvious to use Wellings' process with Lane's liquid developers concentrate to piece together this applicants' invention. A piecemeal reconstruction of the prior art patents in light of Appellant's disclosure is not a basis for a holding of obviousness. In re Kamm et al., 172 U.S.P.Q. 298 (C.C.P.A. 1972). The mere fact that the prior art devices could have been modified does not make the modification obvious unless the prior art suggested the desirability of such a modification. In re Gordon, 221 U.S.P.Q. 1125, (Fed. Cir. 1984); Jones v. Hardy, 220 U.S.P.Q. 1021, (Fed. Cir. 1984). It is clear that the combination of patents does not suggest that the modifications proposed by the Examiner be made.

As the Court of Appeals for the Federal Circuit stated in Yamanouchi Pharmaceutical Co. v. Danbury Pharmacal Inc., 56 USPQ2d, 1641 (Fed. Cir. 2000) at 1644:

This court has recently reemphasized the importance of the motivation to combine:

As this court has stated, "virtually all [inventions] are combinations of old elements." Therefore, an examiner [or accused infringer] may often find every element of a claimed invention in the prior art. If identification of each claimed element in the prior art were sufficient to negate patentability, very few patents would ever issue. Furthermore, rejecting patents solely by finding prior art corollaries for the claimed elements would permit an examiner [or accused infringer] to use the claimed invention itself as a blueprint for piecing together elements in the prior art to defeat the patentability of the claimed invention.

To counter this potential weakness in the obviousness construct, the suggestion to combine requirement stands as a critical

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safeguard against hindsight analysis and rote application of the legal test for obviousness.

In re Rouffet, 149 F.3d 1350, 1357-58, 47 USPQ2d 1453, 1457 (Fed. Cir. 1998) (internal citations omitted).

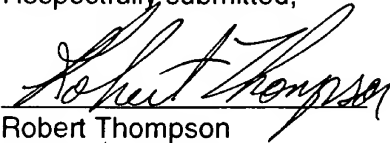
The arguments as presented herein apply to all of the claims. Specifically, Group I Claim 1 is separately patentable in that it recites a process comprising dispersing a first liquid developer concentrate comprising a resin, a colorant, and a liquid developer reconstitution compound, in a carrier liquid, into additional carrier liquid to form a second liquid developer, depositing the second liquid developer onto a liquid receiver member to form a developer cake, developing an image with the developer cake, reclaiming undeveloped developer cake from the cake bearing liquid receiver member, and redispersing the reclaimed undeveloped developer cake in the second developer liquid.

Similar comments are applicable to the Group II claims and wherein the developer cake on the liquid receiver member is charged by a corona charger prior to developing the image. Claim 4 is also believed to be separately patentable in that the second liquid developer is dielectric and the Examiner has pointed to no teachings in the references wherein this is illustrated or would be rendered obvious. Similar remarks are provided with respect to Claims 5,7, and 9, that is no teachings have been referred to by the Examiner in the references wherein there is continuous measuring of the solids content or solids concentration of the second liquid developer in the a developer sump, wherein the process further comprises transferring the developed image to a receiver substrate, reference Claim 7 in combination with the components of Claim and wherein the reclaimed developer cake is combined directly with the second liquid developer, reference Claim 9 in combination with the components of Claim1.

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Accordingly, the Examiner has not established a prima facie case of obviousness. Thus, the Board of Appeals is respectfully urged to reverse all of the Examiner's rejections.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Robert Thompson", is written over a horizontal line.

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9. APPENDIX:

The following are the appealed claims:

1. A process comprising:

dispersing a first liquid developer concentrate comprising a resin, a colorant, and a liquid developer reconstitution compound, in a carrier liquid, into additional carrier liquid to form a second liquid developer;

depositing the second liquid developer onto a liquid receiver member to form a developer cake;

developing an image with the developer cake;

reclaiming undeveloped developer cake from the cake bearing liquid receiver member; and

redispersing the reclaimed undeveloped developer cake in the second developer liquid.

3. (Amended) A process in accordance with **claim 1**, further comprising where the developer cake on the a liquid receiver member is charged by a corona charger prior to developing the image.

4. A process in accordance with claim 1, wherein the second liquid developer is dielectric with a conductivity of from about 0.01 to about 5 pS/cm.

5. (Amended) A process in accordance with **claim 1**, further comprising continuously measuring the solids content or solids concentration of the second liquid developer in a developer sump.

7. (Amended) A process in accordance with **claim 1**, further comprising transferring the developed image to a receiver substrate.

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9. A process in accordance with **claim 1**, wherein the reclaimed developer cake is combined directly with the second liquid developer.

10. A process in accordance with **claim 1**, wherein the reclaimed developer cake is separated from the second liquid developer until the solids content of the second liquid developer drops below from about 6 to about 10 weight percent.